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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/445,298	12/03/1999	WATARU MATSUMOTO	2611-116	9784

7590

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EXAMINER

AHN, SAM K

ART UNIT

PAPER NUMBER

2634

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/445,298

Applicant(s)

MATSUMOTO, WATARU

Examiner

Sam K Ahn

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 November 1999.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 November 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,6 . 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Quayle Action***

1. Claims **1**, **7** and **11** are objected to because of the following informalities: When an uncommon acronyms, such as NEXT and FEXT, are used, it is suggested that the terms be properly described in the initial statement in order for one skilled in the art to comprehend. Appropriate correction is required.
2. Claim **1** is objected to because of the following informalities: on page 50, line 21, "...when the FEXT noise ..." is suggested to be changed to "...when the NEXT noise...". In line 25, FEXT noise coefficient table is used when FEXT noise is transmitted. Therefore, it is understood that when NEXT noise, not FEXT noise, is transmitted, a NEXT noise coefficient table is used.

### ***Allowable Subject Matter***

3. Claims **1-14** are allowable. The following is a statement of reasons for the indication of allowable subject matter: Prior art does not teach a digital communication device for optimally correcting transmission path characteristics containing noise, a NEXT (near-end crosstalk), interference noise transmitted by a device located close to the seen device, and FEXT (far-end cross talk), interference noise transmitted by a device remotely located to the seen device, transmitted from a plurality of half-duplex communication devices comprising a

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seen device, transmitted from a plurality of half-duplex communication devices comprising a NEXT noise coefficient table and a FEXT noise coefficient table for correcting characteristics of the transmission path by equalizers.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cupo et al., Gailwad et al., Monsen, and Agazzi are cited as related to the subject matters of the present invention.

Cupo discloses plurality of equalizer with implementation of coefficient tables to synchronize multiple equalizers.

Gailwad discloses elimination of crosstalk (NEXT and FEXT) in communication line through different signaling methods (EQPSD, FDS, MFDS)

Monsen discloses dual channel communication receiver with equalizer reducing cross-interference between channels through analog coefficients in equalizers.

Agazzi discloses a communication system reducing noise with FEXT and NEXT cancellation systems comprising multiple filters.

### *Conclusion*

The limitations in the claims indicated are not met by any of the cited references because of its specified, detailed description and unique features. Therefore, those particular claims are not rejected based on prior art.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam K Ahn whose telephone number is 703-305-0754. The examiner can normally be reached on Mon-Fri 9am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

SKA  
November 15, 2002



**STEPHEN CHIN**  
**SUPERVISORY PATENT EXAMINE**  
**TECHNOLOGY CENTER 2600**